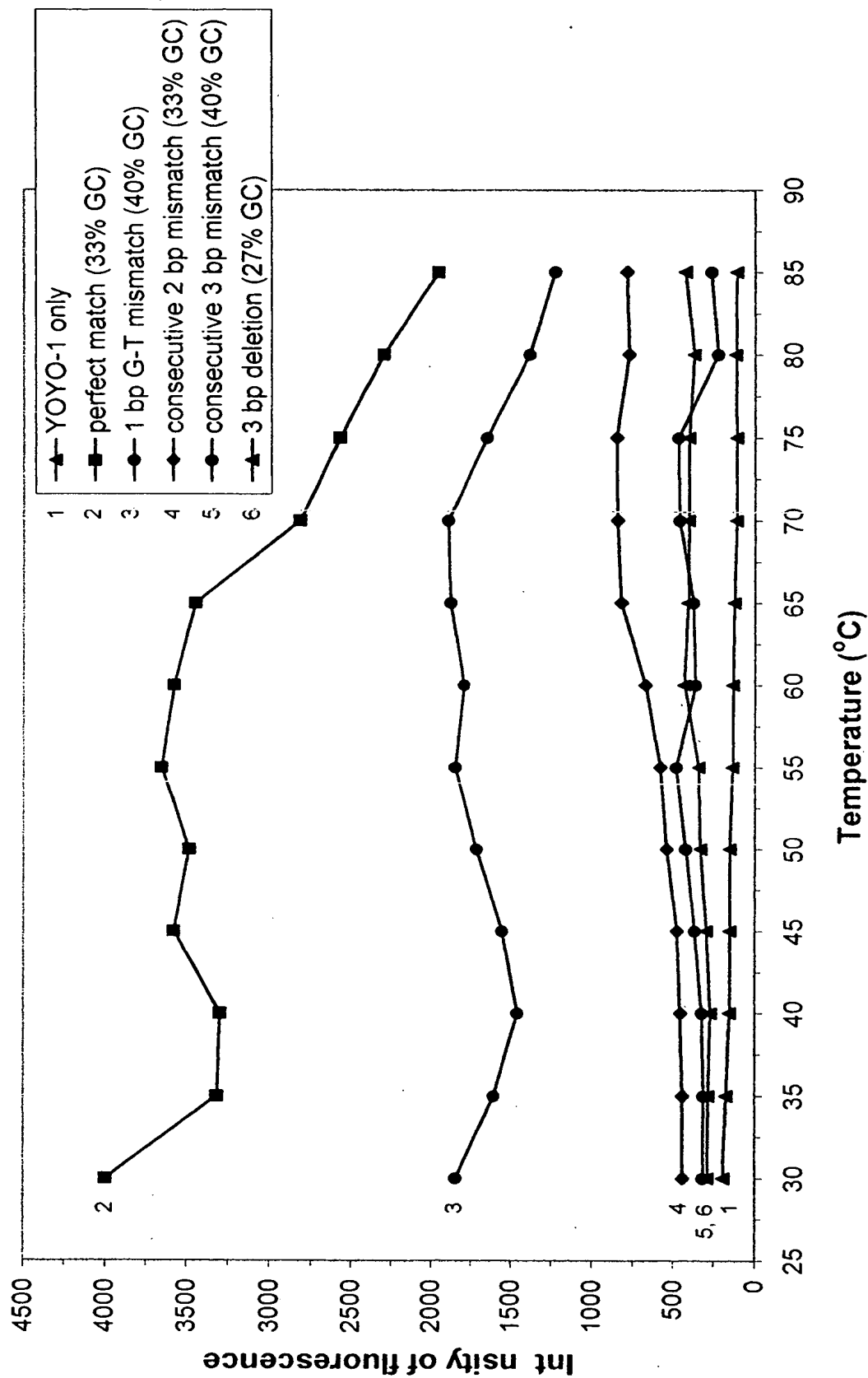


FIG. 1. Binding of 15-mer antiparallel ssDNA to 50-mer dsDNA with YOYO-1 without prior denaturation of dsDNA



**FIG. 2A. Binding of 15-mer antiparallel ssDNA to 50-mer dsDNA with YOYO-1**  
without prior denaturation of dsDNA

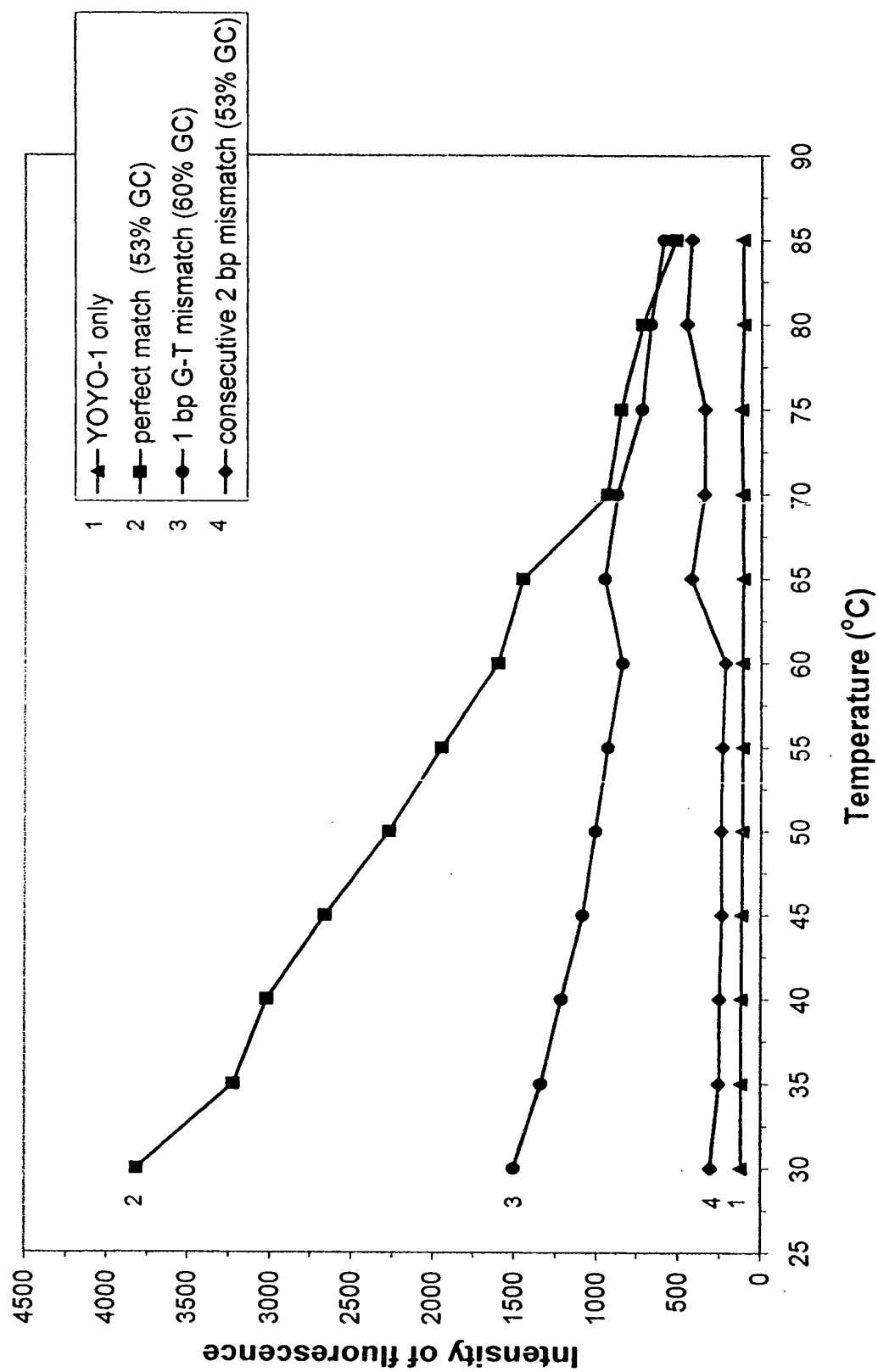


FIG. 2B. Binding of 15-mer antiparallel ssDNA to 50-mer dsDNA with YOYO-1  
without prior denaturation of dsDNA

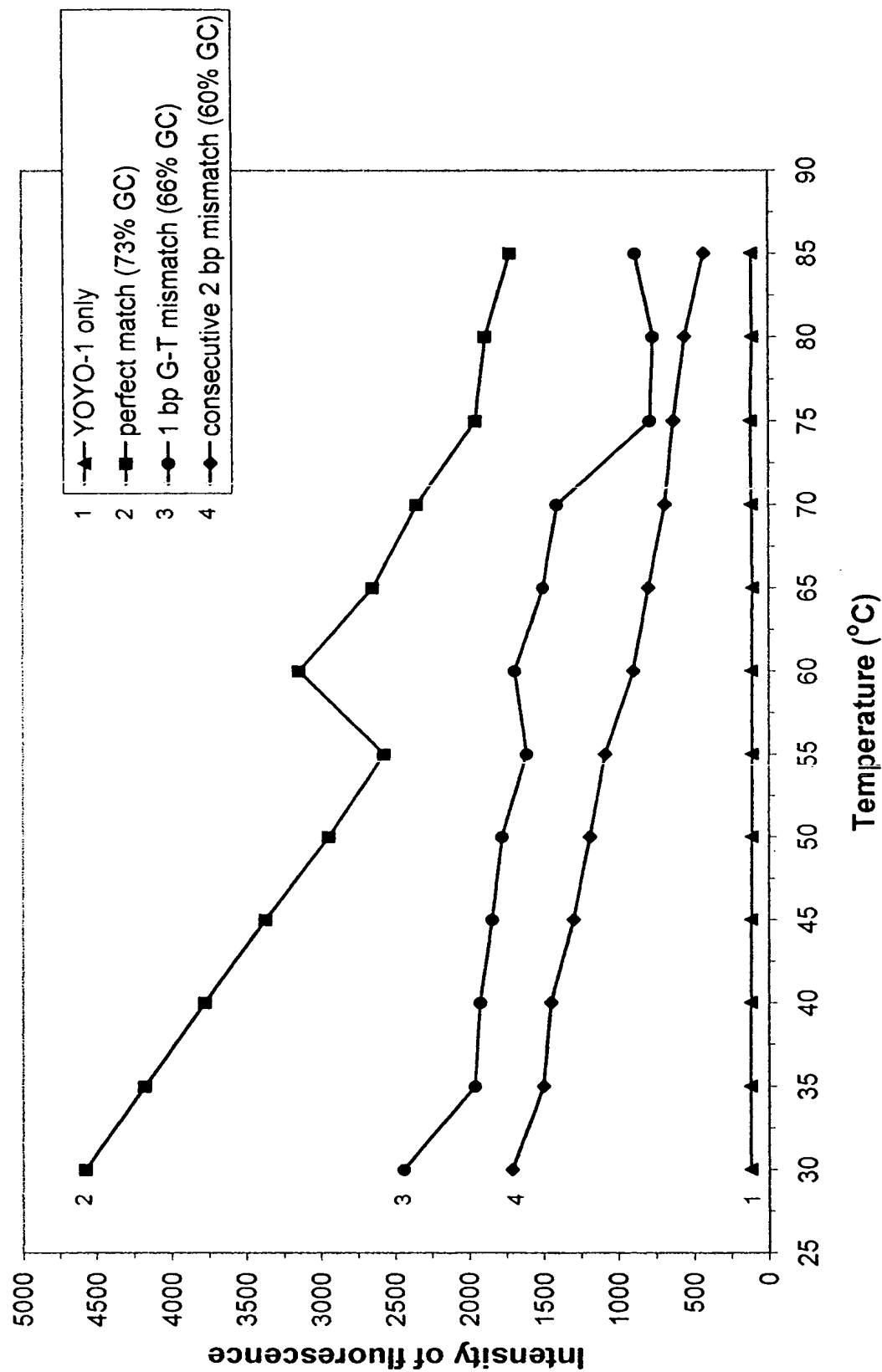


FIG. 3. Binding of 15-mer antiparallel ssDNA-F probe (4 pmole) (33% GC) and 50-mer dsDNA (0.4 pmole) in the presence of 50 mM NaCl (after 1 hr)

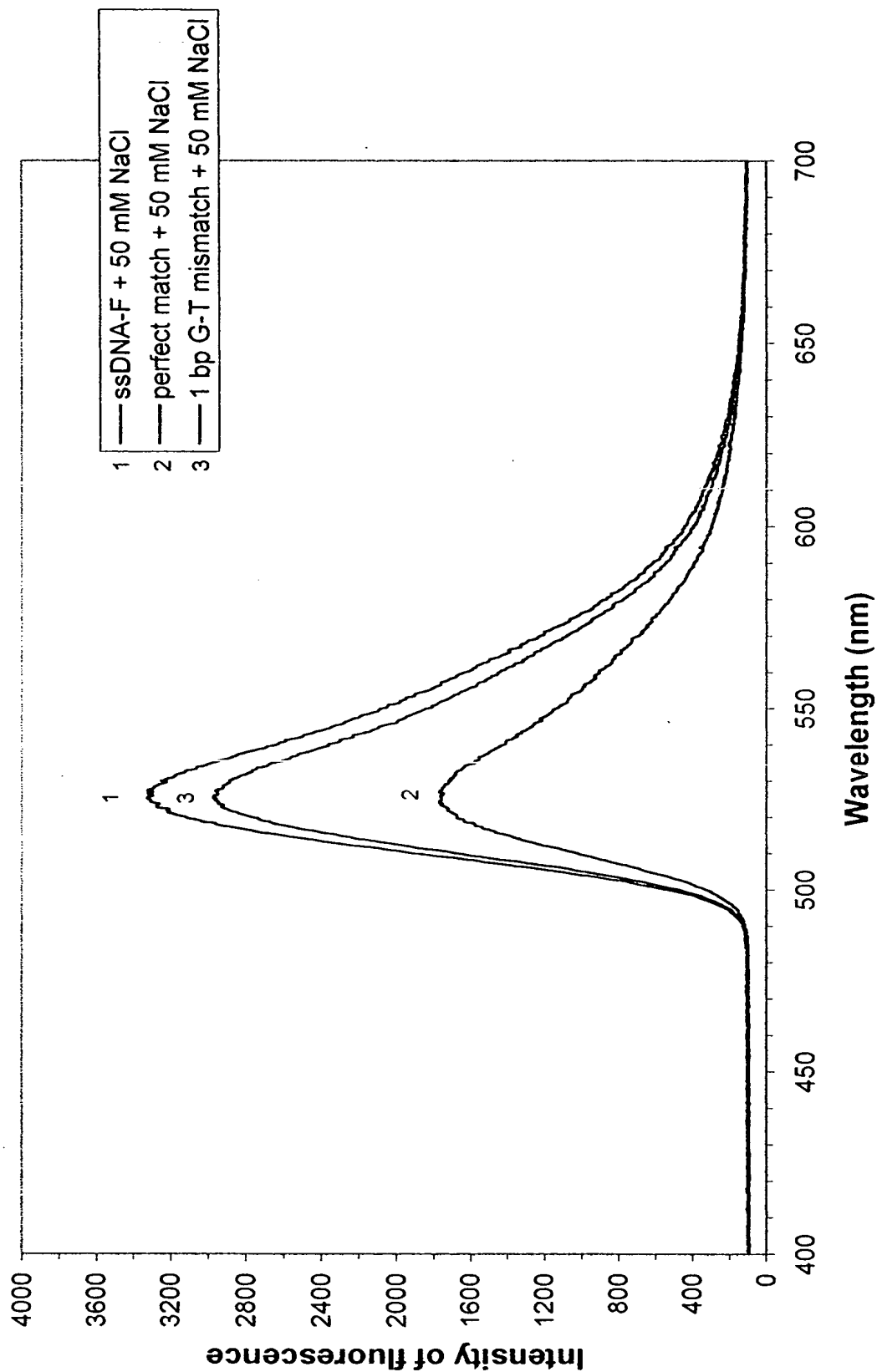


FIG. 4. Binding of 15-mer antiparallel ssDNA-F probe (4 pmole) (53% GC) and 50-mer dsDNA (0.4 pmole) in the presence of divalent cations (after 1 hr)

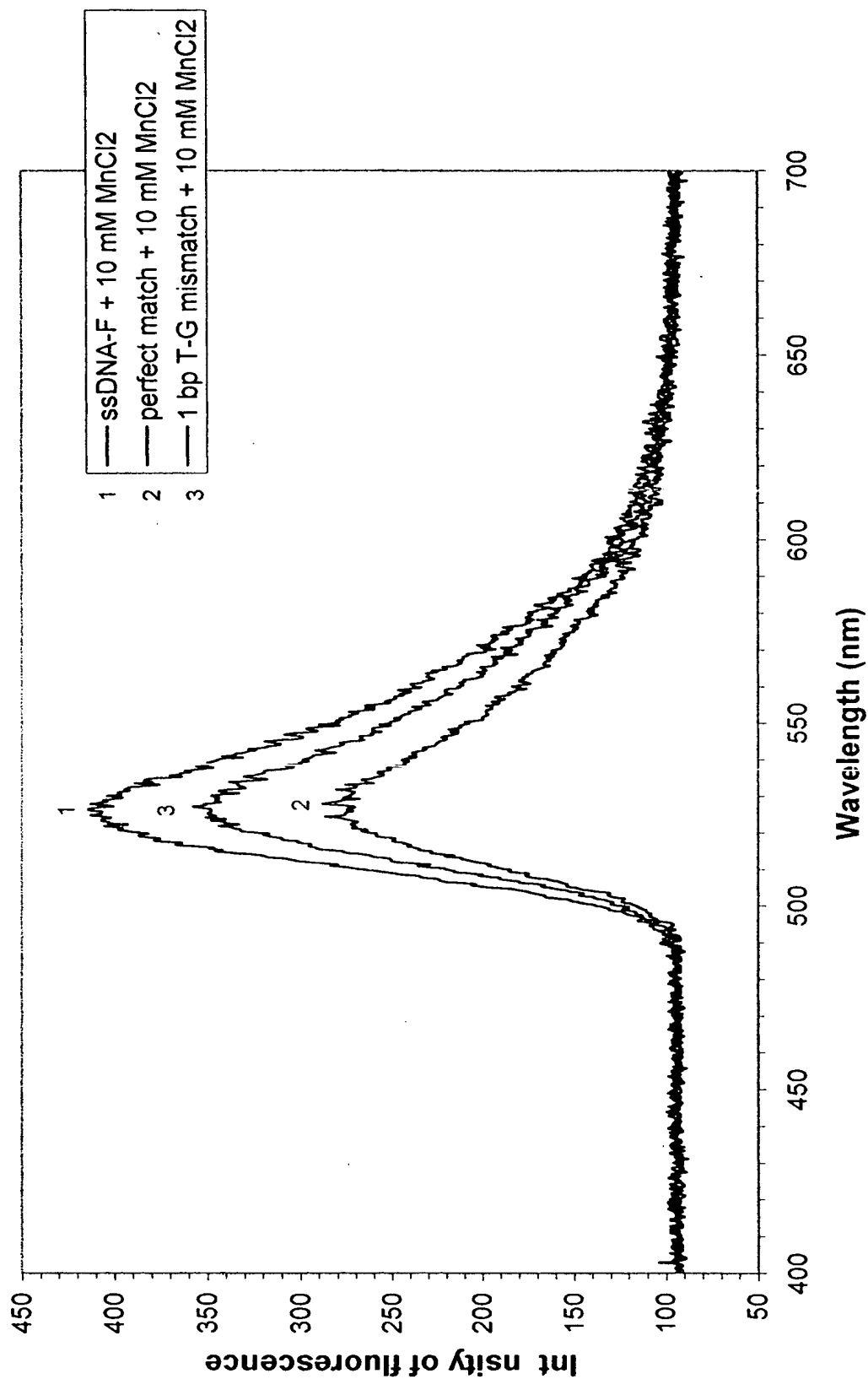


FIG. 5A. Binding of 15-mer antiparallel ssDNA-F probe (4 pmole) (73% GC) and 50-mer dsDNA (0.4 pmole) in the presence of divalent cations (after 1 hr)

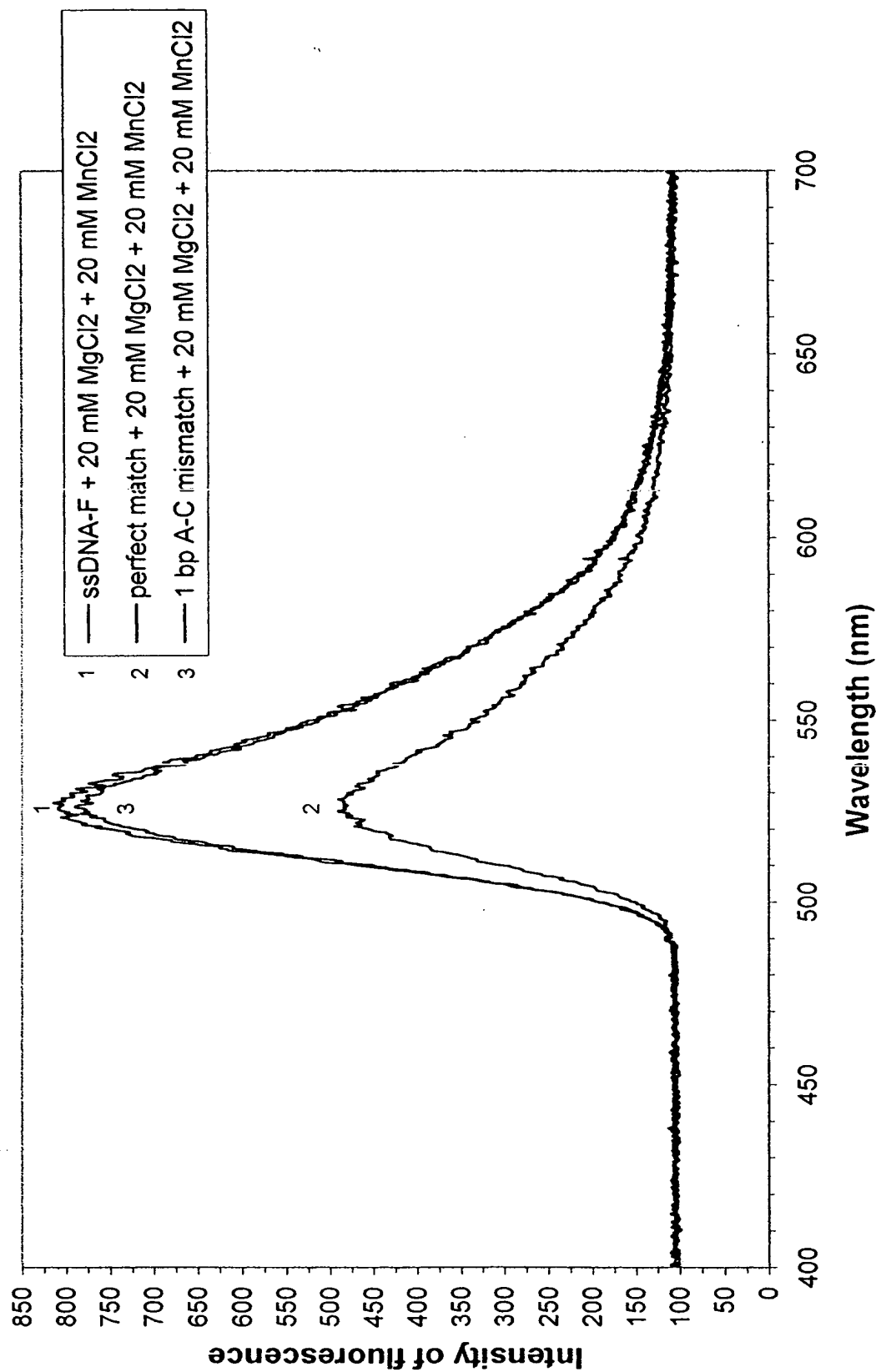


FIG. 5B. Binding of 15-mer antiparallel ssDNA-F probe (4 pmole) (33% GC) and 50-mer dsDNA (0.4 pmole) in the presence of divalent cations (after 1 hr)

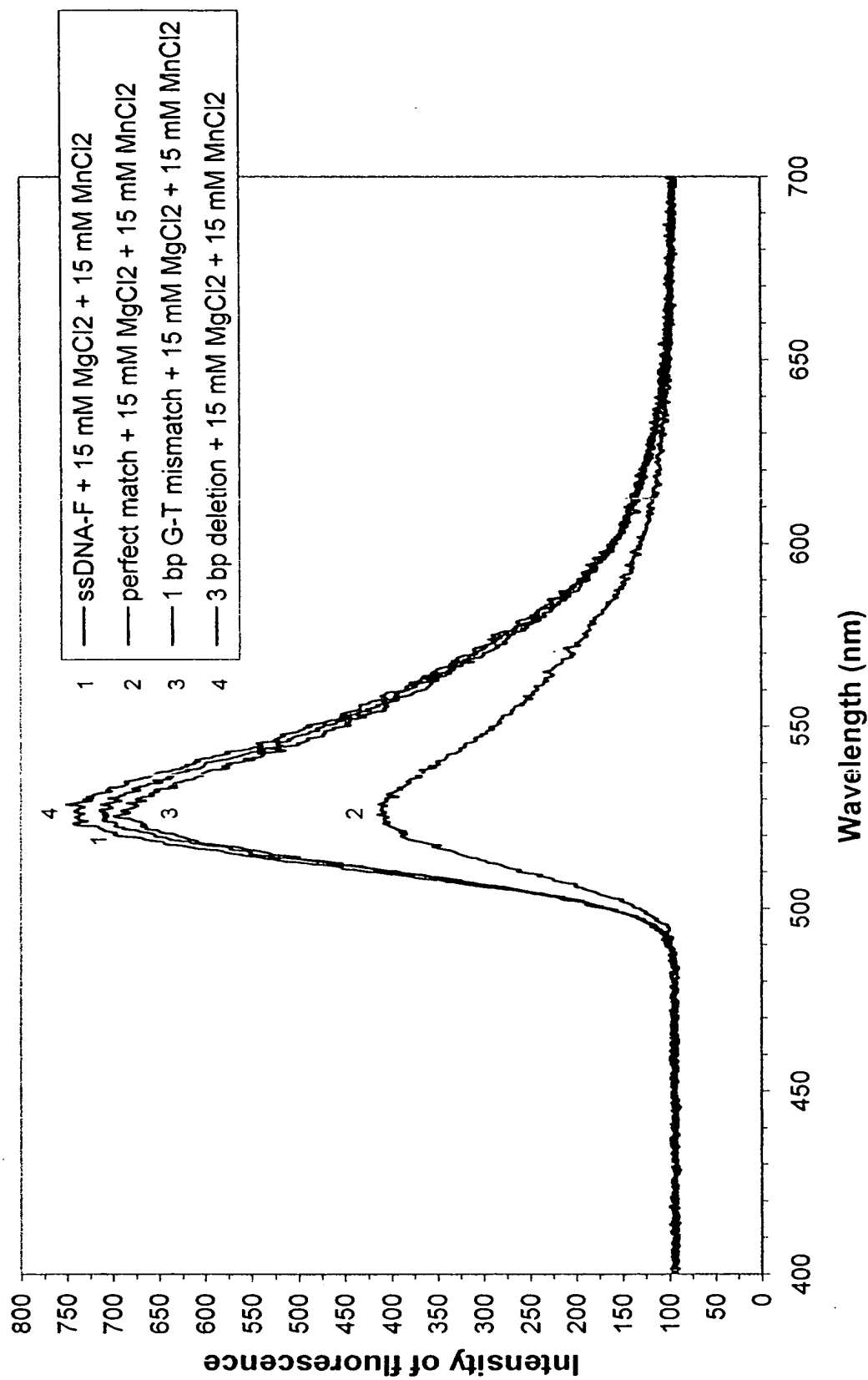
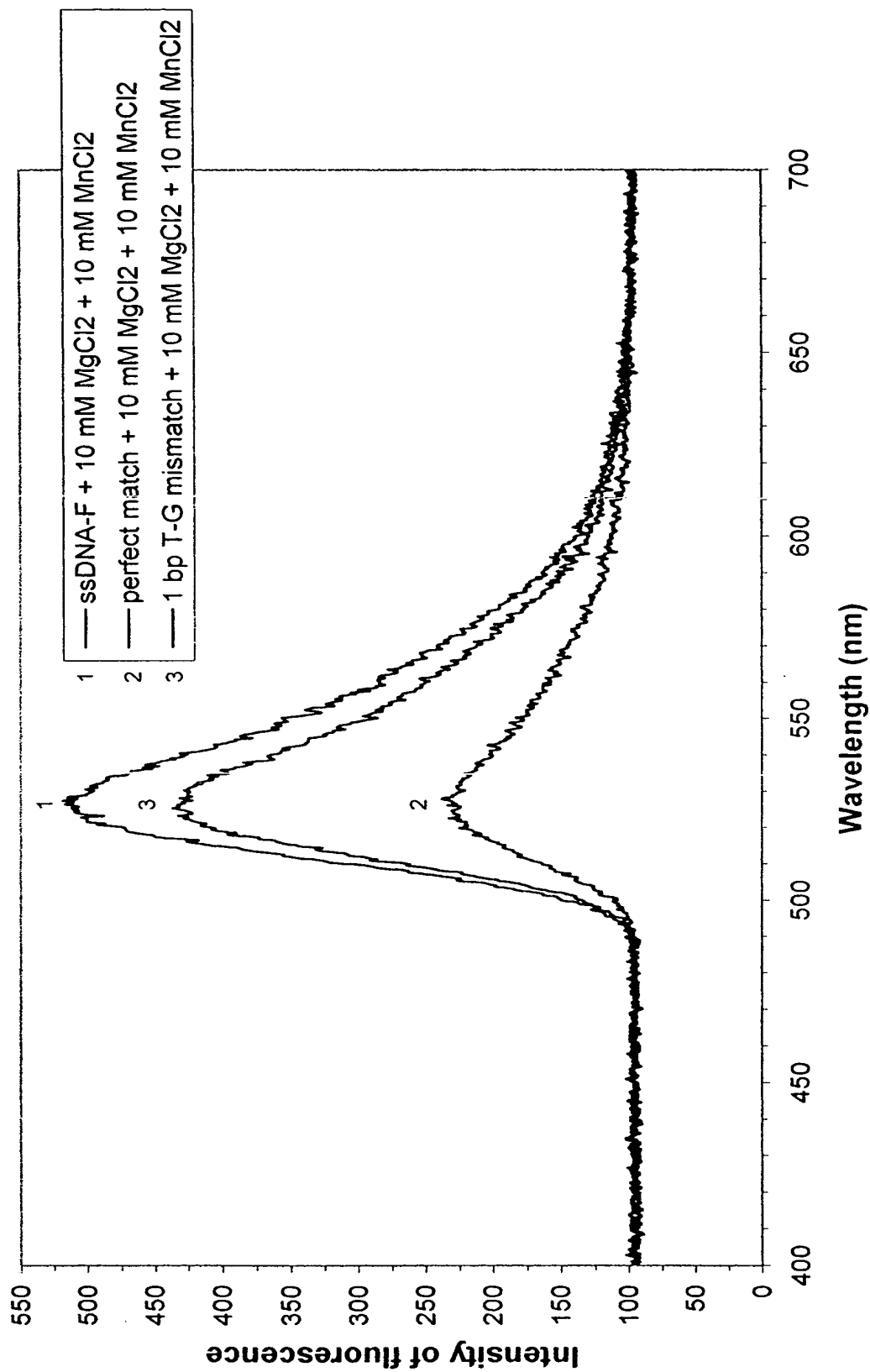


FIG. 5C. Binding of 15-mer antiparallel ssDNA-F probe (4 pmole) (53% GC) and 50-mer dsDNA (0.4 pmole) in the presence of divalent cations (after 1 hr)





**FIG. 5D. Binding of 15-mer antiparallel ssDNA-F probe (4 pmole) (53% GC) and 50-mer dsDNA (0.4 pmole) in the presence of divalent cations (after 1 hr)**

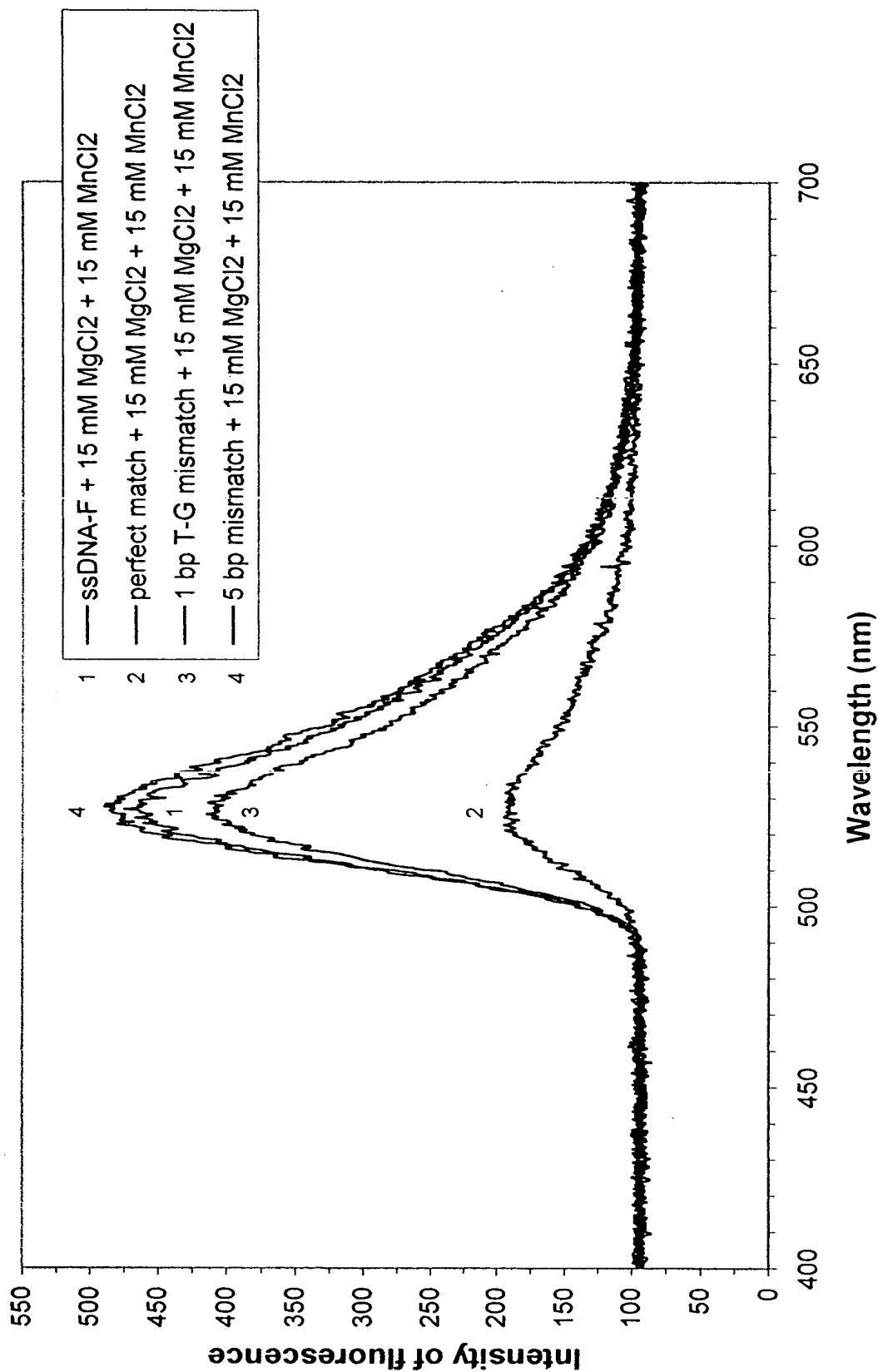


FIG. 6A. Effect of multiple laser treatment on cationic quench of 15-mer antiparallel ssDNA-F (4 pmole) by 10 mM  $\text{MgCl}_2$  + 10 mM  $\text{MnCl}_2$

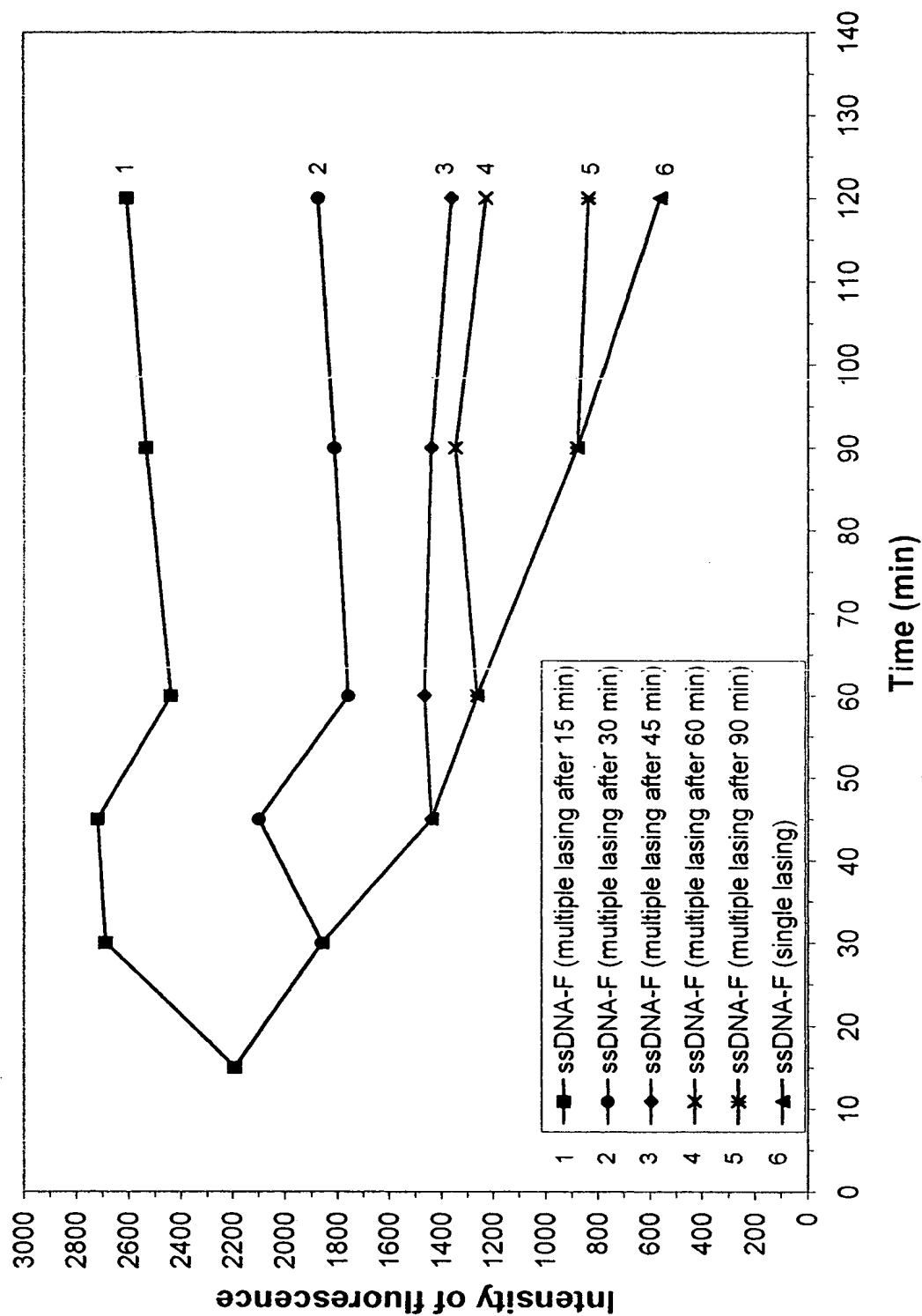
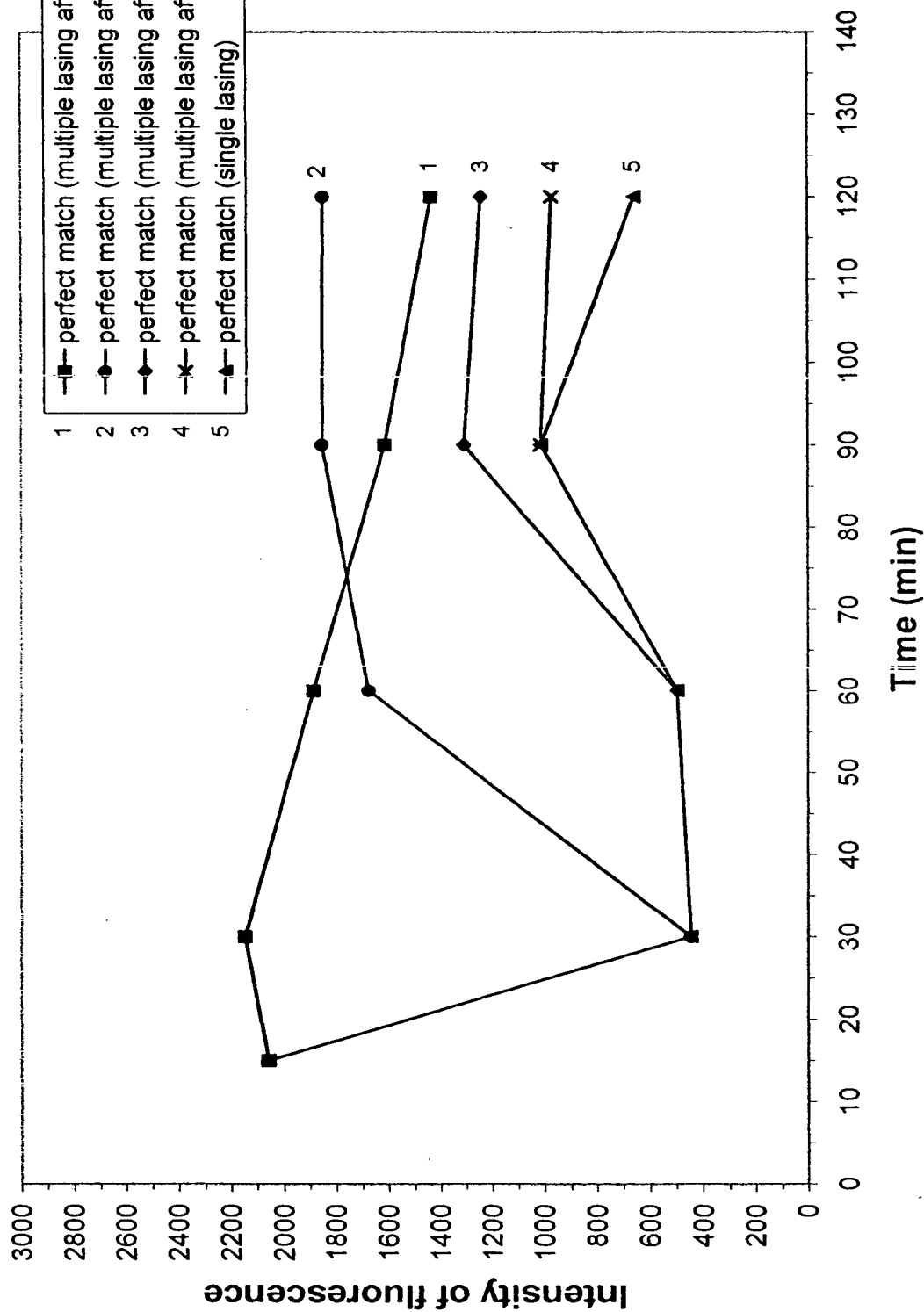


FIG. 6B. Effect of multiple laser treatment on complex formation between perfectly matched antiparallel 15-mer ssDNA-F (4 pmole) + 50-mer dsDNA (0.4 pmole) in the presence of 10 mM  $MgCl_2$  + 10 mM  $MnCl_2$



**FIG. 6C. Effect of multiple laser treatment on complex formation between antiparallel 15-mer ssDNA-F (4 pmole) + 50-mer dsDNA (0.4 pmole) resulting in a 1 bp T-G mismatch in the presence of 10 mM MgCl<sub>2</sub> + 10 mM MnCl<sub>2</sub>**

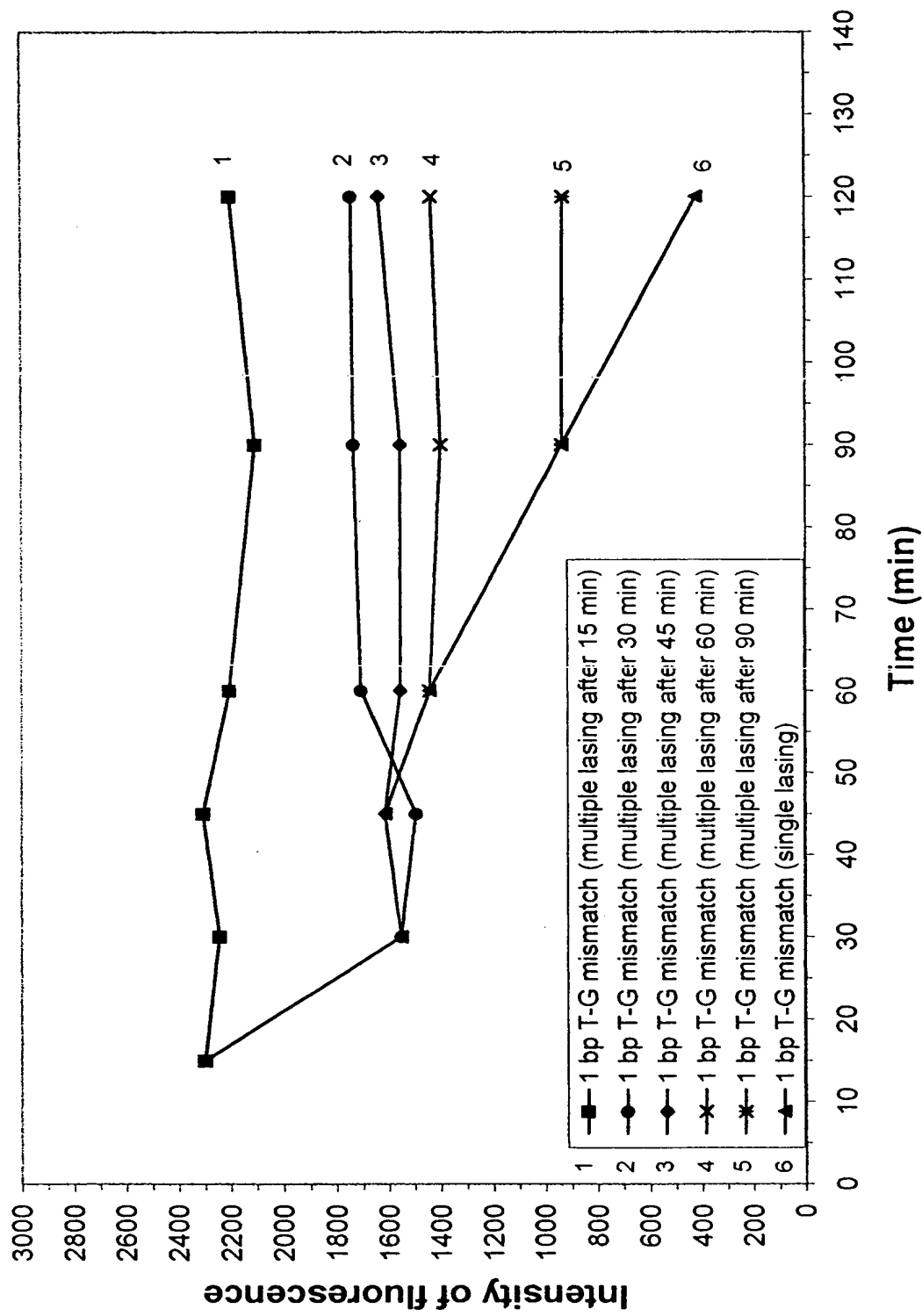


FIG. 7A. Binding of 15-mer dsDNA-F (4 pmole) (53% GC) and 50-mer dsDNA (0.4 pmole) in the presence of 90 mM KCl over time

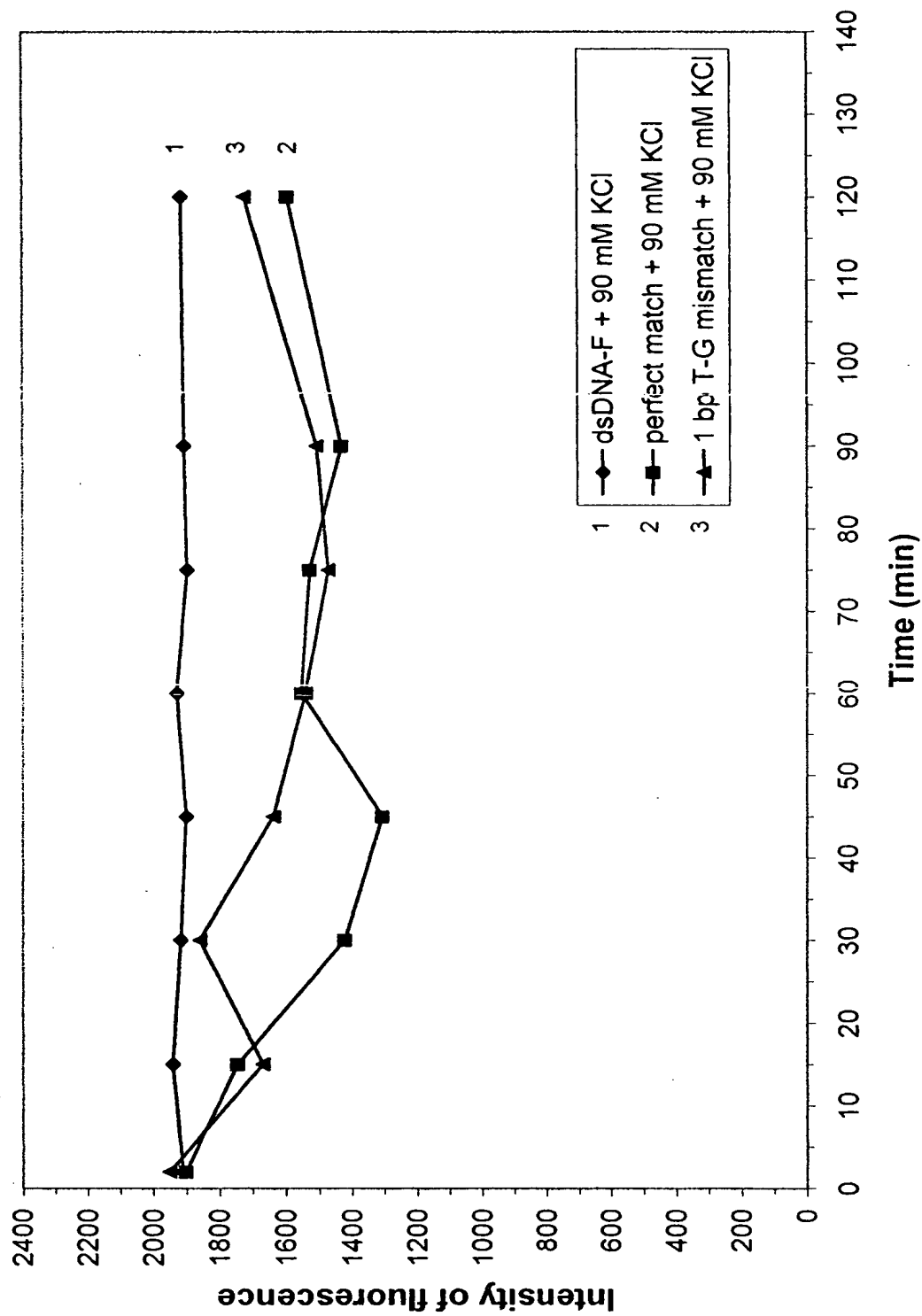


FIG. 7B. Binding of 15-mer dsDNA-F (4 pmole) (53% GC) and 50-mer dsDNA (0.4 pmole) in the presence of 70 mM KCl + 20 mM NaCl over time

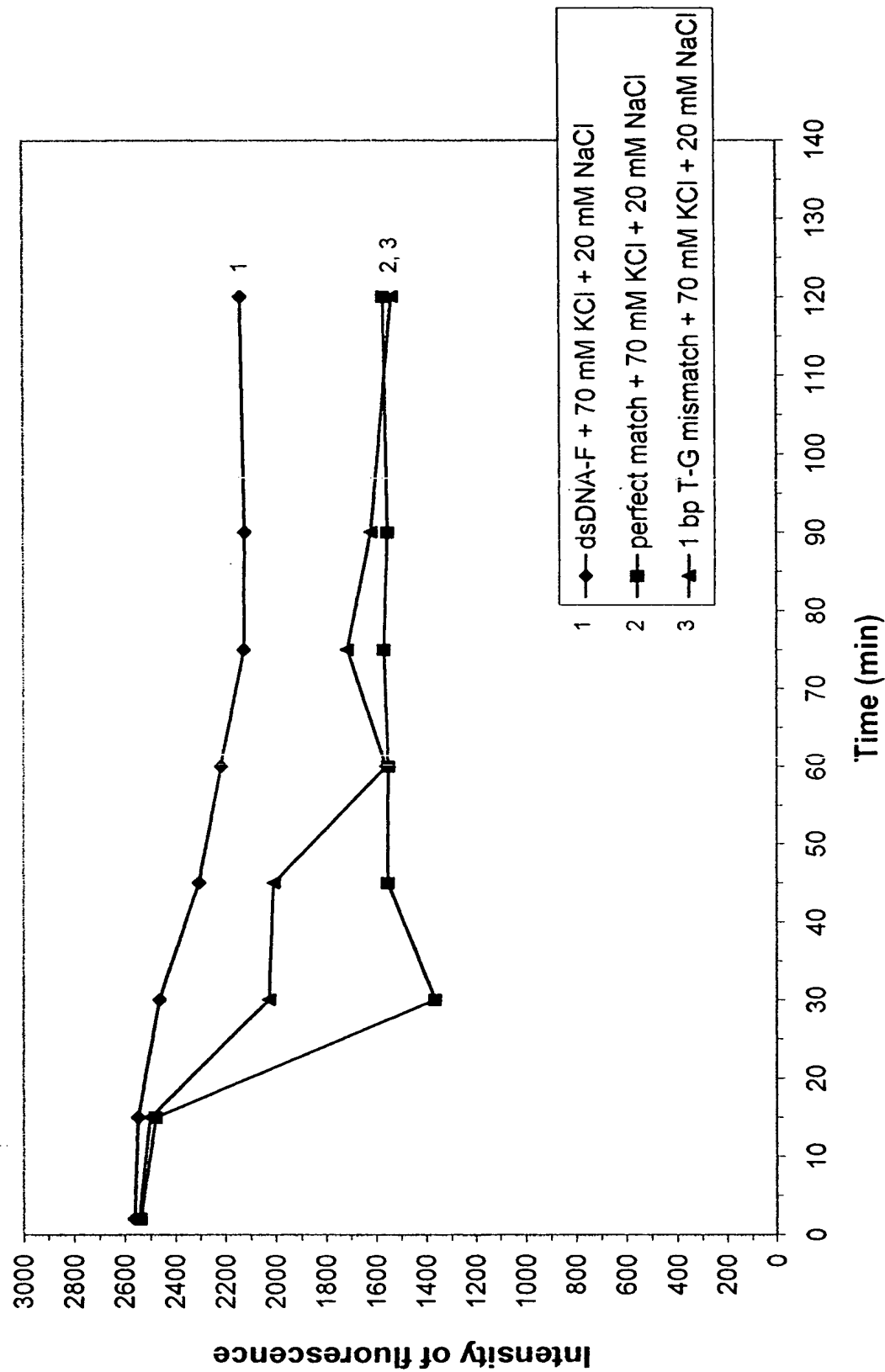


FIG. 7C. Binding of 15-mer dsDNA-F (4 pmole) (53% GC) and 50-mer dsDNA (0.4 pmole) in the presence of 80 mM KCl + 10 mM NaCl over time

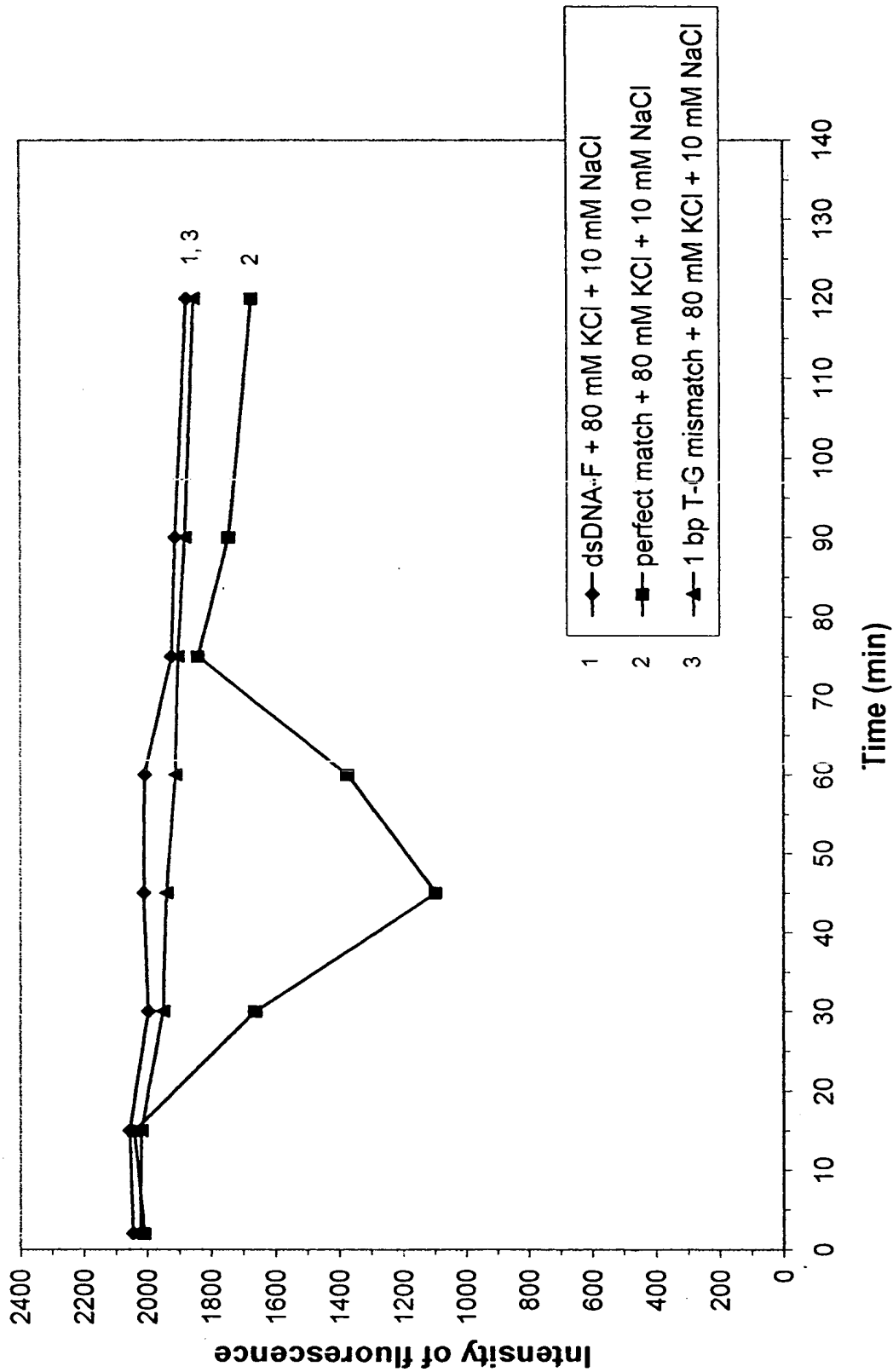


FIG. 8A. Binding of 15-mer dsDNA-F (4 pmole) (53% GC) and 50-mer dsDNA (0.4 pmole) in the presence of 30 mM MnCl<sub>2</sub> + 30 mM MgCl<sub>2</sub> over time

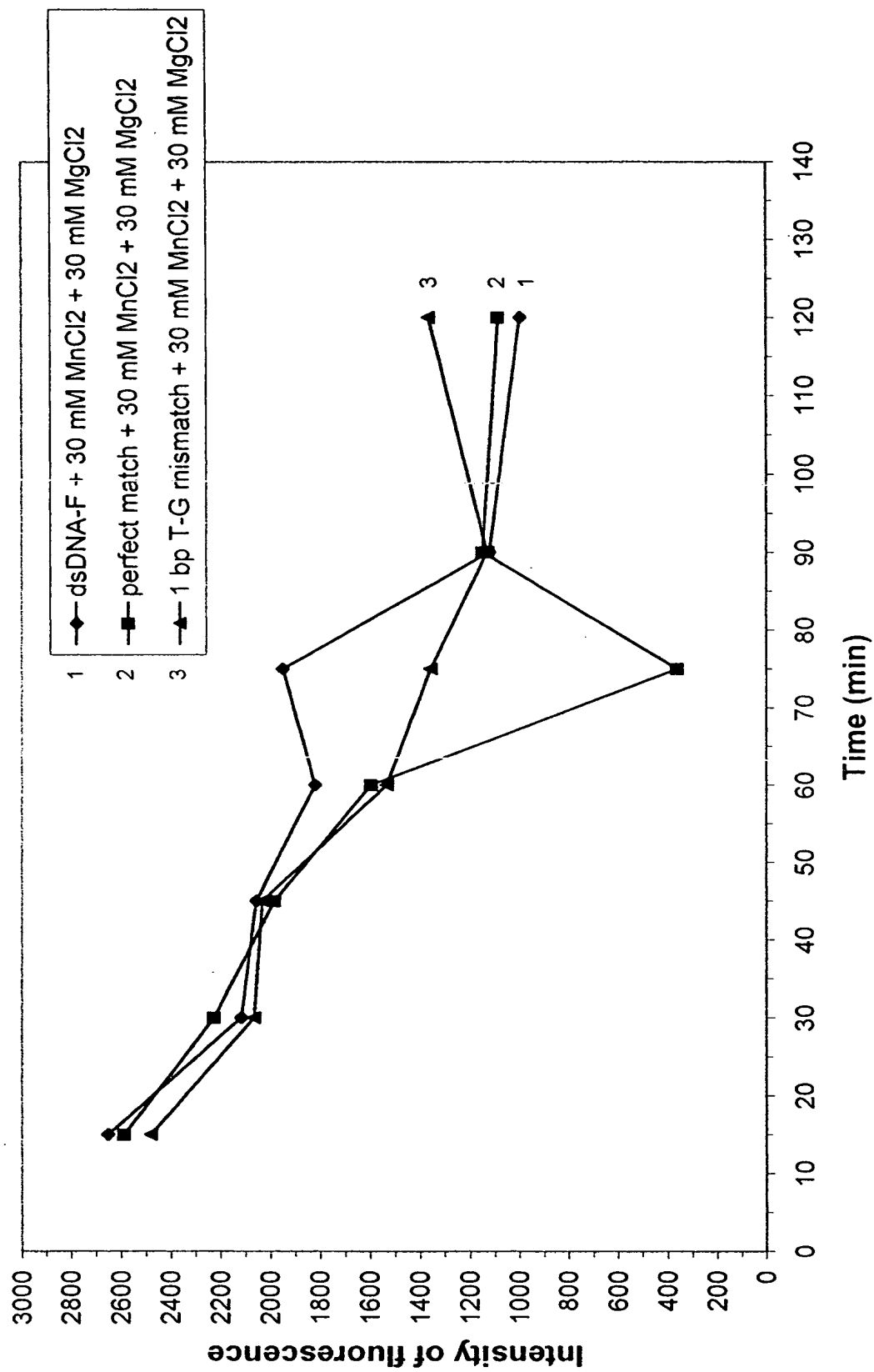




FIG. 8B. Binding of 15-mer dsDNA-F (4 pmole) (53% GC) and 50-mer dsDNA (0.4 pmole) in the presence of 40 mM MnCl<sub>2</sub> + 40 mM MgCl<sub>2</sub> over time

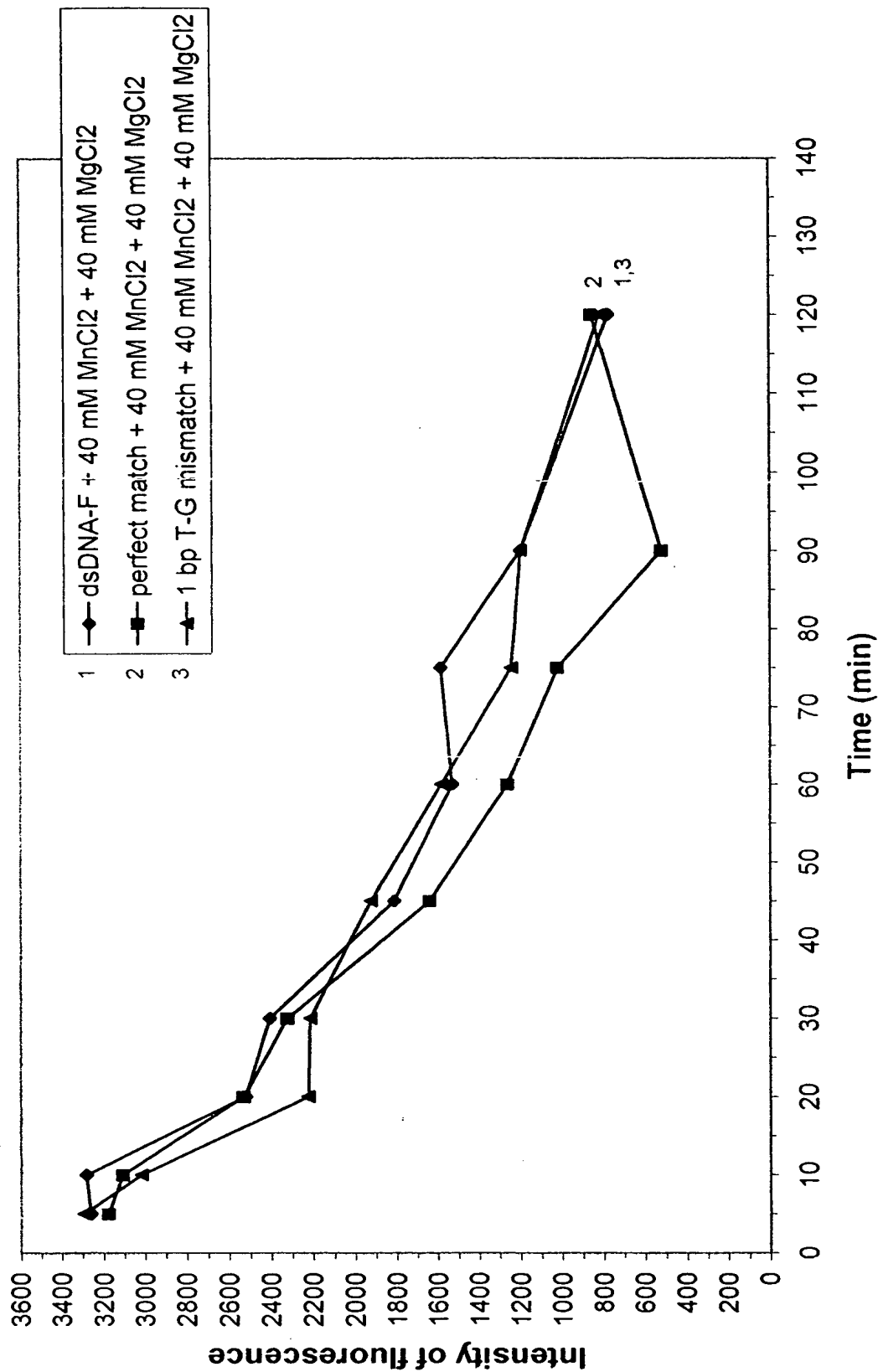


FIG. 9A. Binding of 15-mer dsDNA-F (4 pmole) (53% GC) and 50-mer dsDNA (0.4 pmole) in the presence of monovalent and divalent cations over time

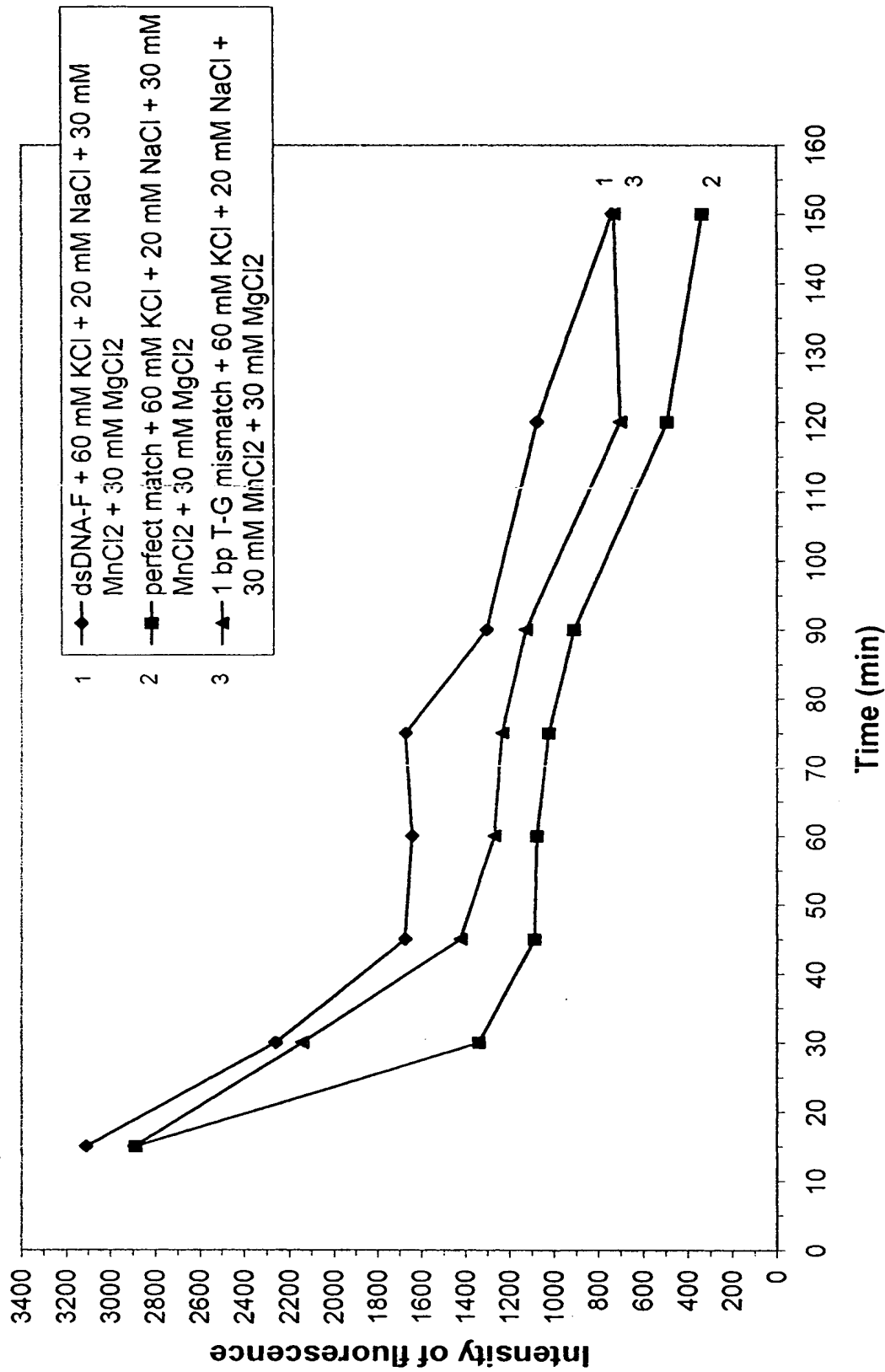


FIG. 9B. Binding of 15-mer dsDNA-F (4 pmole) (53% GC) and 50-mer dsDNA (0.4 pmole) in the presence of monovalent and divalent cations over time

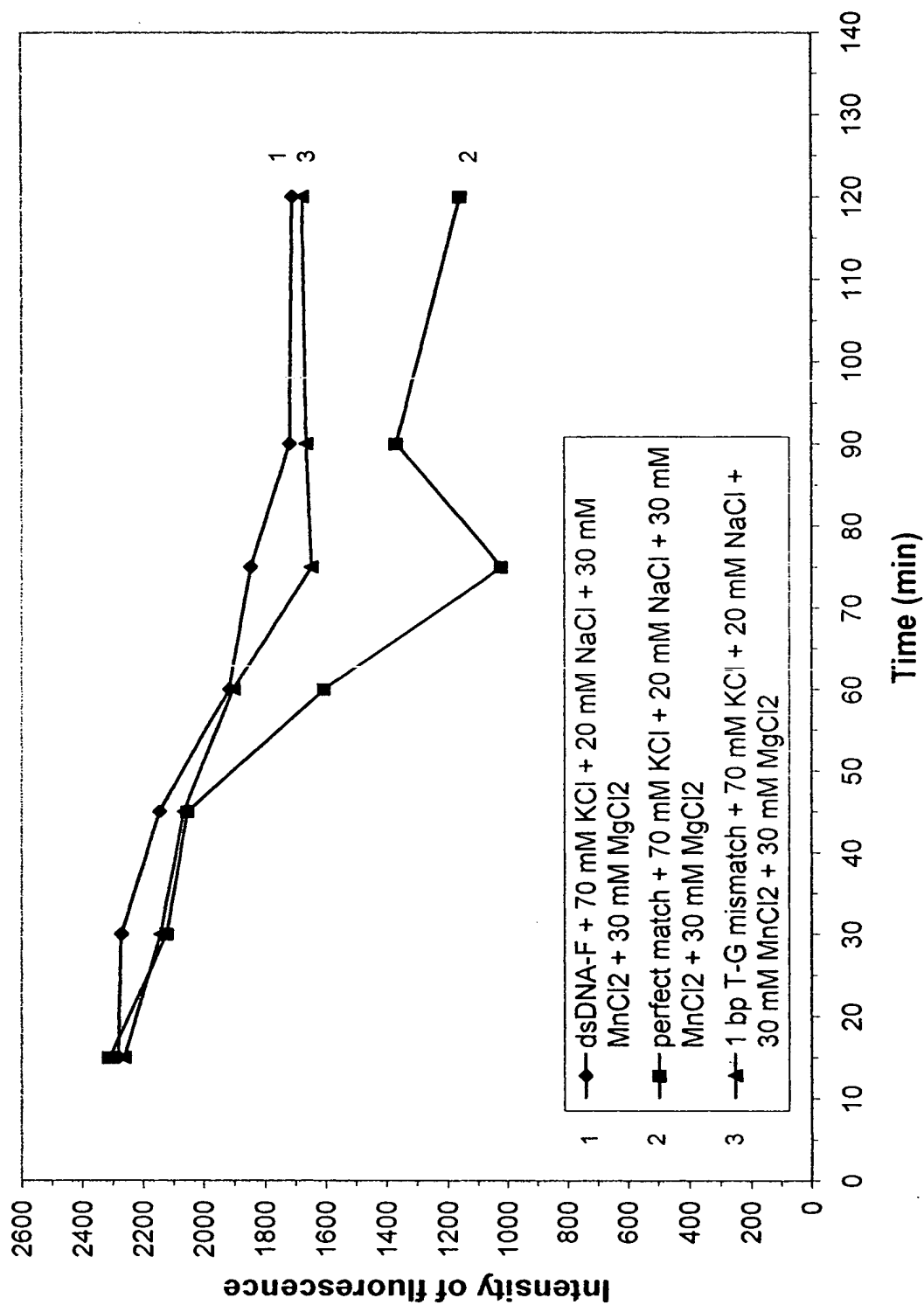


FIG. 9C. Binding of 15-mer dsDNA-F<sup>-</sup> (4 pmole) (53% GC) and 50-mer dsDNA (0.4 pmole) in the presence of monovalent and divalent cations over time

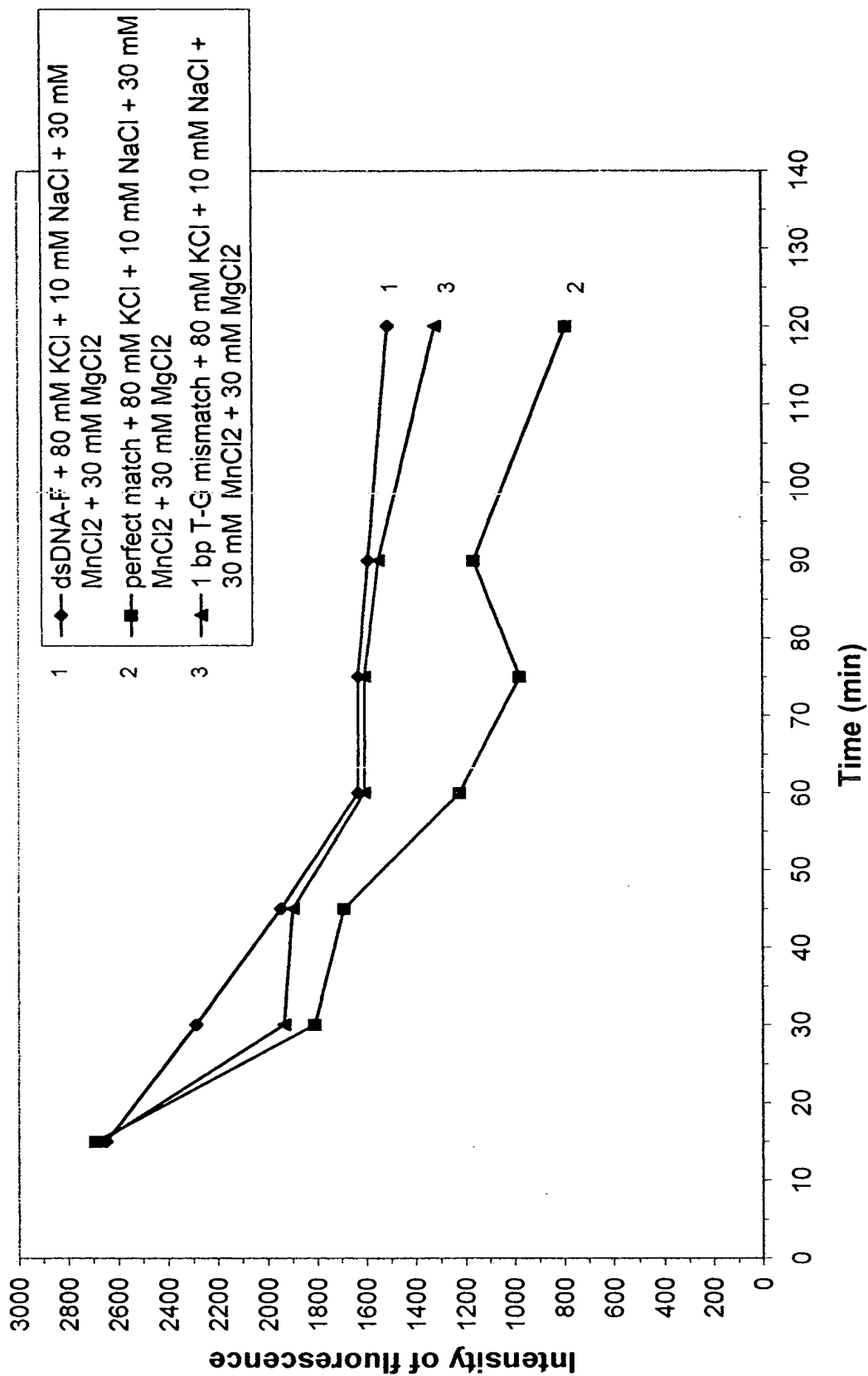


FIG. 10. Binding of 15-mer antiparallel ssDNA-F (2 pmole) (53% GC) and 50-mer dsDNA (0.2 pmole) in the presence of 1 mM spermidine over time

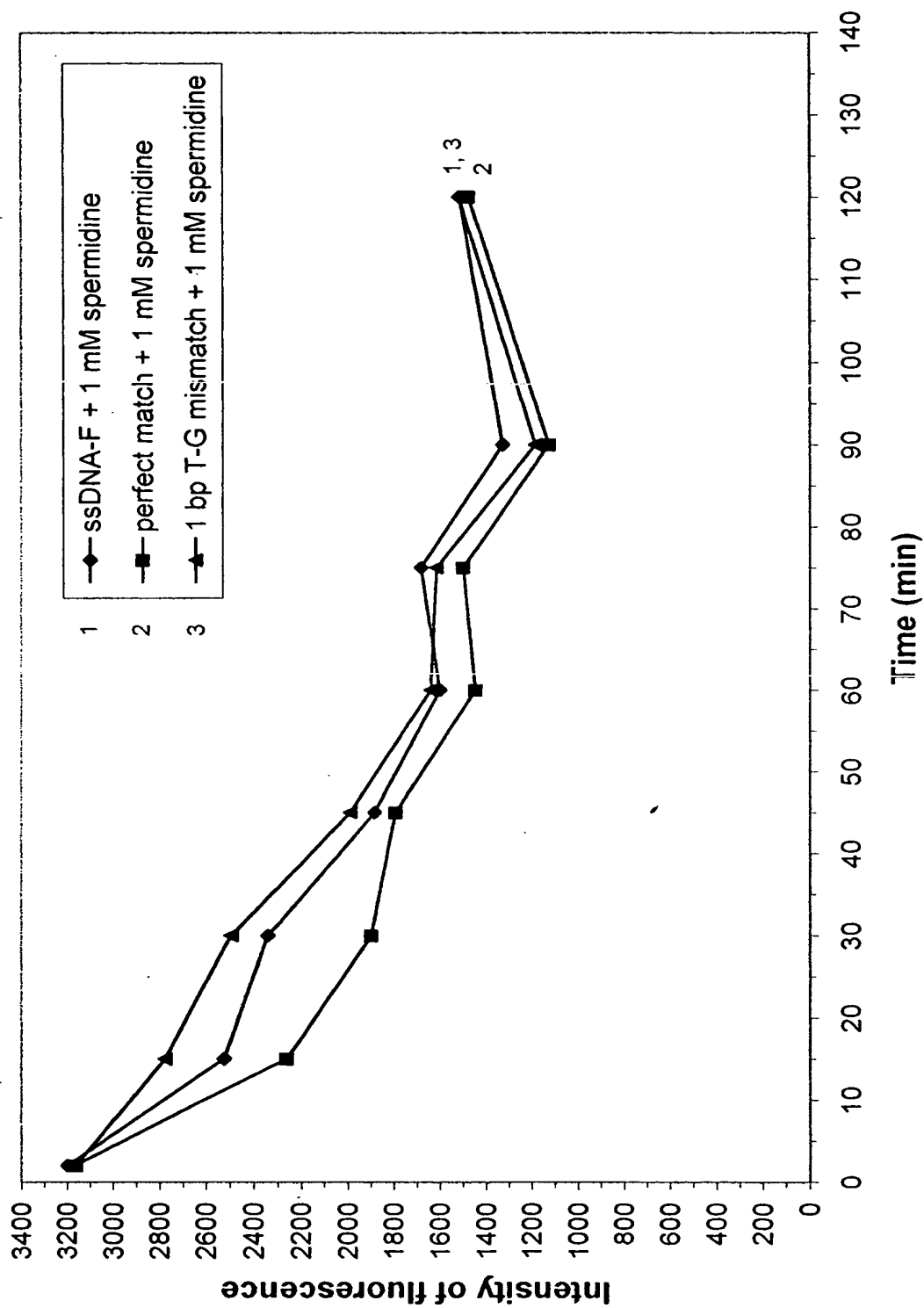


FIG. 11. Binding of 15-mer antiparallel ssDNA-F (2 pmole) (53% GC) and 50-mer dsDNA (0.2 pmole) in the presence of 10% ethanol over time

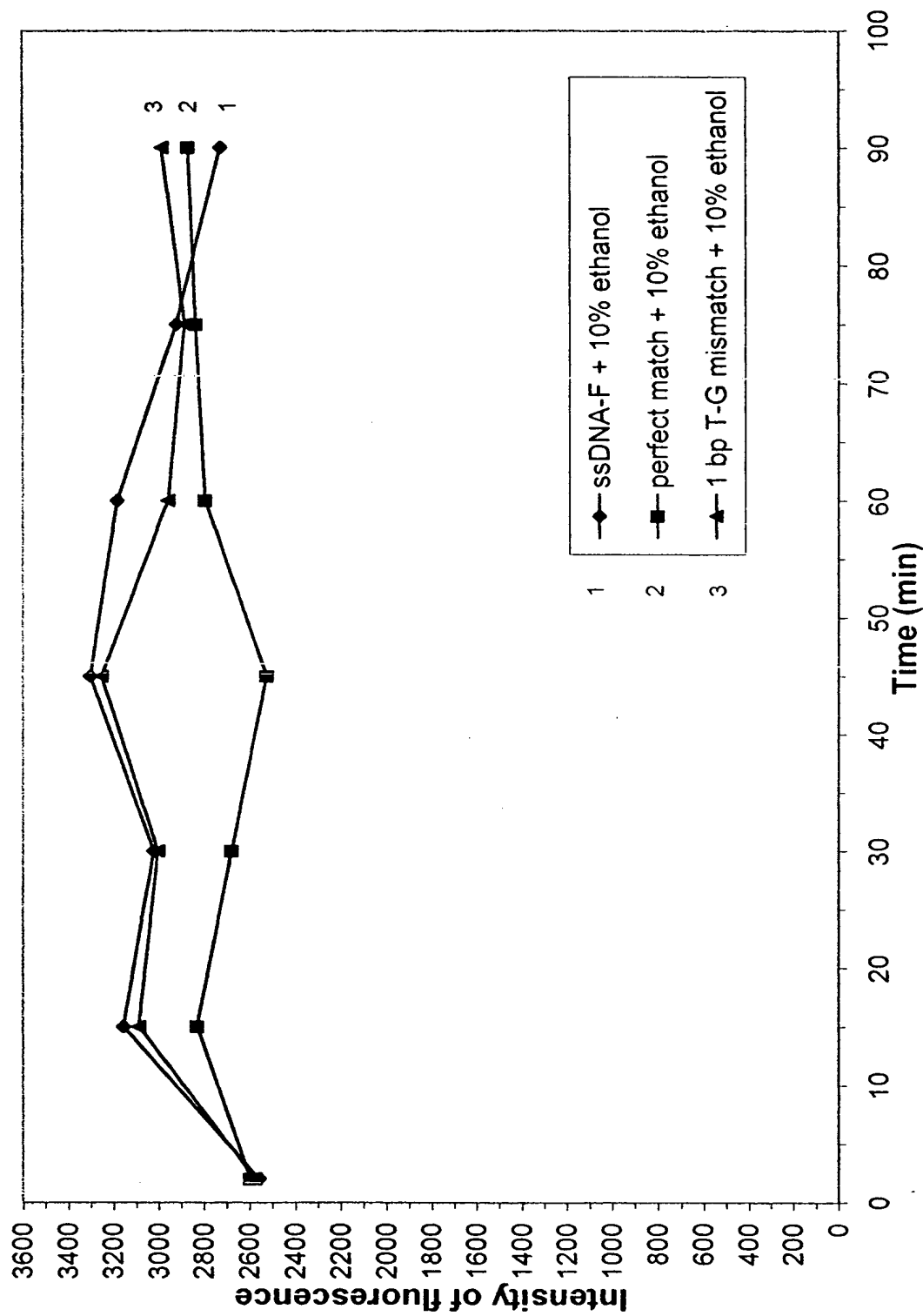


FIG. 12A. Binding of 15-mer antisense ssDNA to 50-mer dsDNA with YOYO-1

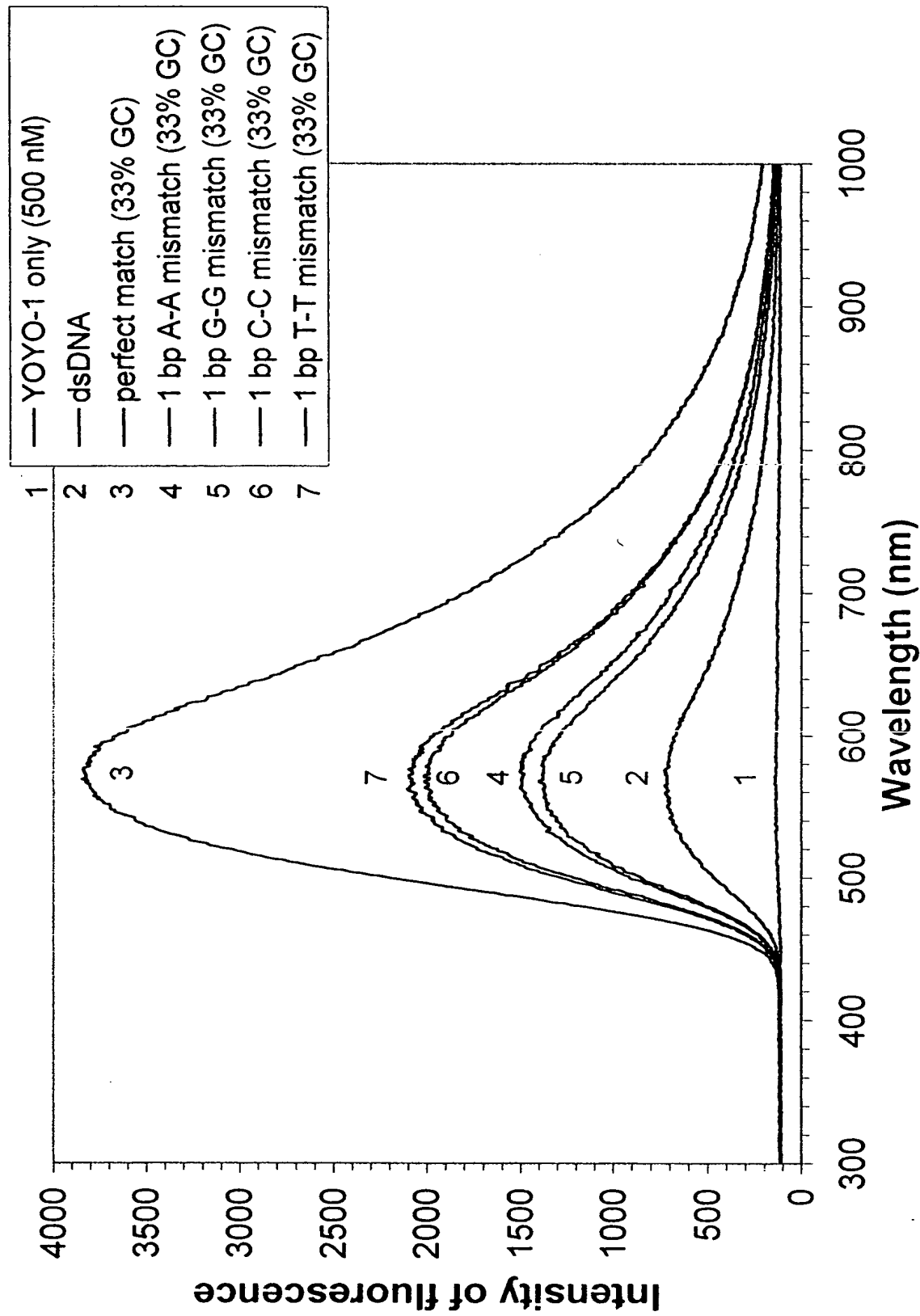


FIG. 12B. Binding of 15-mer antisense ssDNA to 50-mer dsDNA with YOYO-1

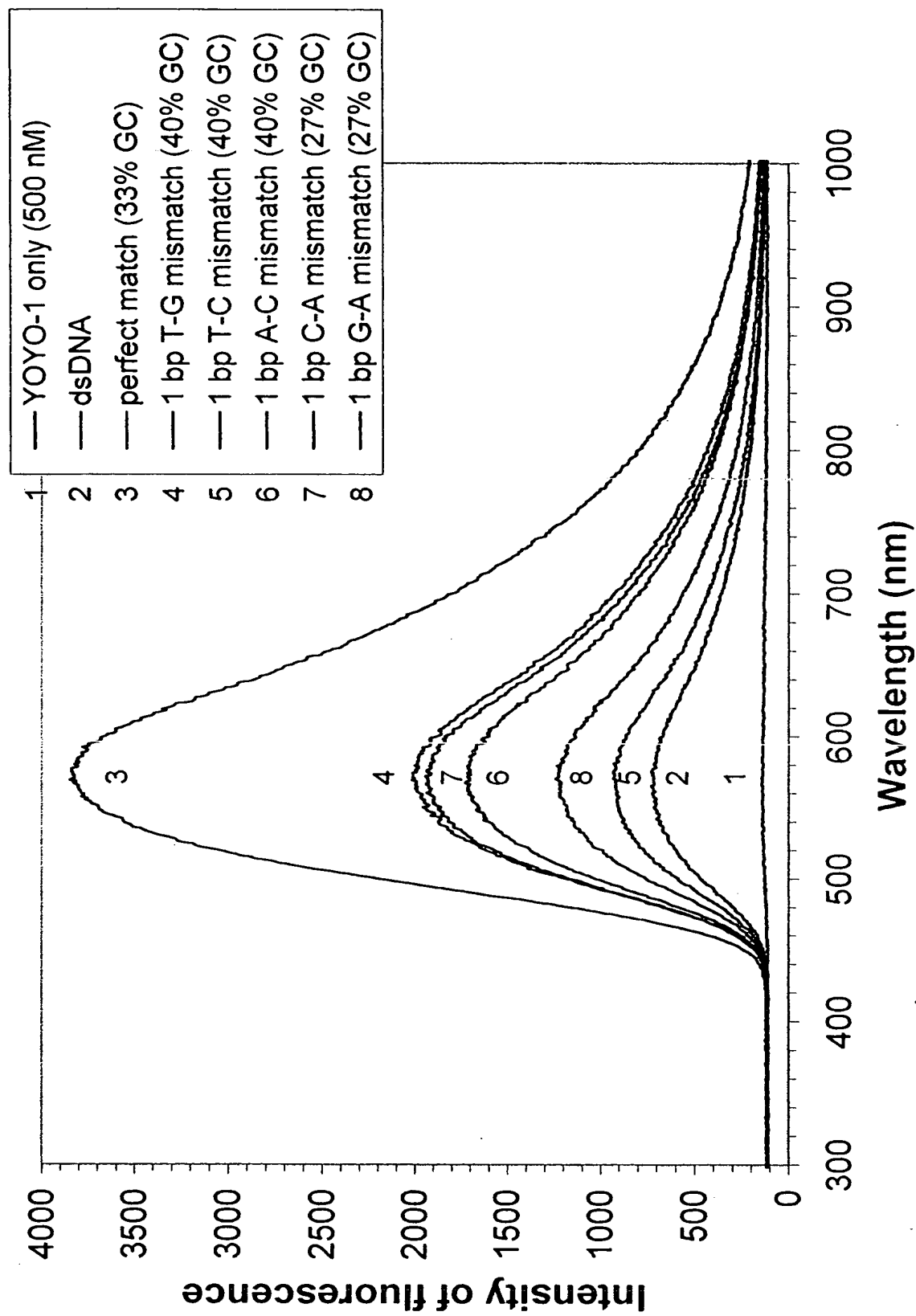




FIG. 12C. Binding of 15-mer sense ssDNA to 50-mer dsDNA with YOYO-1

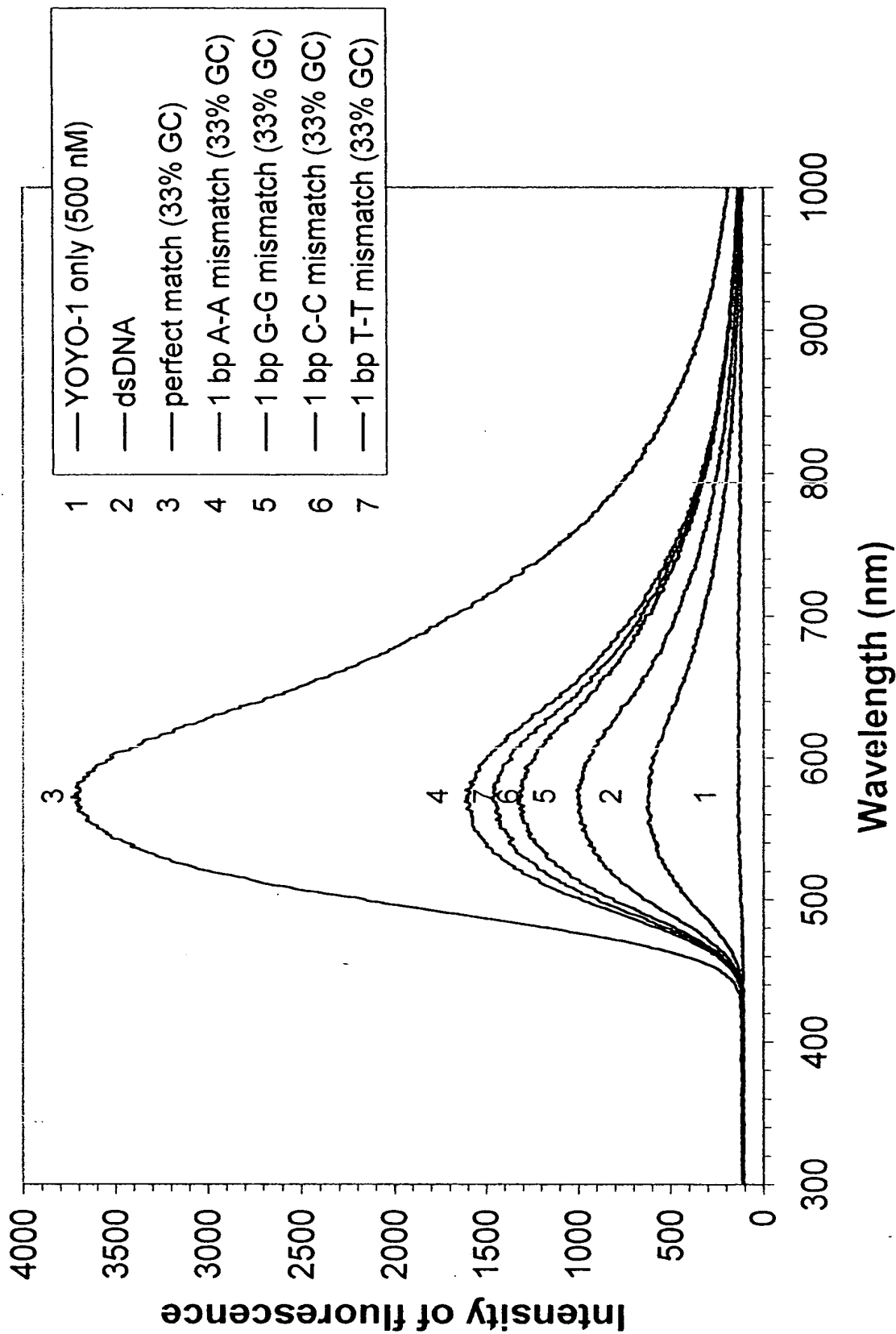


FIG. 12D. Binding of 15-mer sense ssDNA to 50-mer dsDNA with YOYO-1

